



# Water/Sewer Capital Improvement Plan

George E Elder Park  
May 15, 2014



# Process to Repair our City

- ◎ **Identify the Need** – Condition of water & sewer system, streets, parks, facilities, etc.
- ◎ **Community Involvement** – Discuss with City Council and community
- ◎ **Prop 218 Process** – Required to inform residents
- ◎ **Proceed with Repairs** – Five year water and sewer Capital Improvement Program (CIP)
- ◎ **Evaluate the Program** – Adjust every 3-5 years must



# Proposition 218 Process

- ◉ Less accountability before Prop 218 (2006)
- ◉ Must inform property owners and utility customers of proposed rate increases, and allow method to “protest”
- ◉ Applies to water, wastewater and solid waste fee increases (considered property related)
- ◉ 16,359 properties in Monterey Park affected
- ◉ Rate increase may not exceed cost of service and system maintenance by “LAW”



# Much Needed Water & Sewer Repairs

- ⦿ Systems date back to 1920s
- ⦿ Was not built for growth
- ⦿ Pipeline breaks increasing...sign of aging system
- ⦿ Emergency repairs are four times more expensive than scheduled replacements
- ⦿ 65% of sewer lines have never been inspected
- ⦿ **\$12.8 million in Sewer CIP** identified (anticipated increase after more video inspections)
- ⦿ **\$100 million in Water CIP** identified



# Water Rate Alternatives

- ◎ **Alternative 1** – (*Conservative*) \$100 million CIP in 12 years with \$42.5 million first 5 years
- ◎ **Alternative 2** – (*Reasonable*) \$100 million CIP in 19 years with \$26.5 million first 5 years
- ◎ **Alternative CC** (*Gradual Increase*)
  - \$100 million CIP in 20 years, \$26.3 million first 5 years
  - Rates increase gradually



# Water Rate Comparison-Residential

Water Agency	Existing Bill	Sept 2014	Sept 2015	Sept 2016	Sept 2017	Sept 2018	5 Year CIP
MPK Alternative 1	\$28.82	\$75.01	\$77.26	\$79.58	\$81.97	\$84.42	\$42.5 Million
MPK Alternative 2	\$28.82	\$66.25	\$67.21	\$69.22	\$71.30	\$73.44	\$26.5 Million
MPK Alternative CC	\$28.82	\$50.24	\$60.29	\$70.54	\$79.01	\$85.33	\$26.3 Million
California Water Service (MPK Customers)	\$53.52						
Golden State Water (MPK Customers)	\$54.05						
San Gabriel Water Company	\$55.31						
City of Covina	\$60.71						
City of Alhambra	\$60.71						
City of South Pasadena	\$61.79						

The chart above compares the current and proposed average monthly water bills for single family residential accounts (5/8" and 3/4" meter with 12 units of water consumed each month)



# Water Rate Comparison-Commercial

Type of Business	Current Bill	Sept '14 Estimate	Sept '15 Estimate	Sept '16 Estimate	Sept '17 Estimate	Sept '18 Estimate
<b>Drug Store</b> 3/4", 13 units	\$42.03	\$53.85	\$64.58	\$75.58	\$84.56	\$91.38
<b>Church</b> 1 1/2", 114 units	\$313.32	\$355.37	\$426.13	\$498.74	\$557.84	\$602.91
<b>Supermarket</b> 1 1/2", 212 units	\$557.22	\$599.27	\$718.53	\$841.01	\$940.53	\$1,016.59
<b>Hotel</b> 2", 242 units	\$640.38	\$716.91	\$859.62	\$1,006.13	\$1,125.27	\$1,216.23
<b>Apartment</b> 4", 852 units	\$2,246.53	\$2,478.63	\$2,972.01	\$3,778.54	\$3,890.34	\$4,204.85
<b>Restaurant</b> 1", 983 units	\$2,453.41	\$2,482.26	\$2,976.01	\$3,483.41	\$3,894.94	\$4,210.32
<b>Estates HOA</b> 4", 2523 units	\$6,405.23	\$6,637.33	\$7,957.85	\$9,314.51	\$10,415.60	\$11,258.56



# What Can You Do? – Conserve Water

## Residential

- ◉ Water lawn and gardens less frequently or in cooler morning or evening hours
- ◉ Install low volume toilets and water-saving clothes and dish washers
- ◉ Install “smart” sprinkler controllers, drip irrigation systems, and rotating sprinkler nozzles
- ◉ Landscape with drought-tolerant plants
- ◉ Support efforts to expand water recycling and use of reclaimed water
- ◉ Run only full loads in dish and clothes washers

## Commercial

- ◉ Educate employees about importance of water conservation
- ◉ Perform leak survey and water audit
- ◉ Install low-flow toilets and urinals
- ◉ Plant low-water-use grass and plants
- ◉ Utilize more energy dishwashers, ice machines, cooking systems, laundry washers, etc.





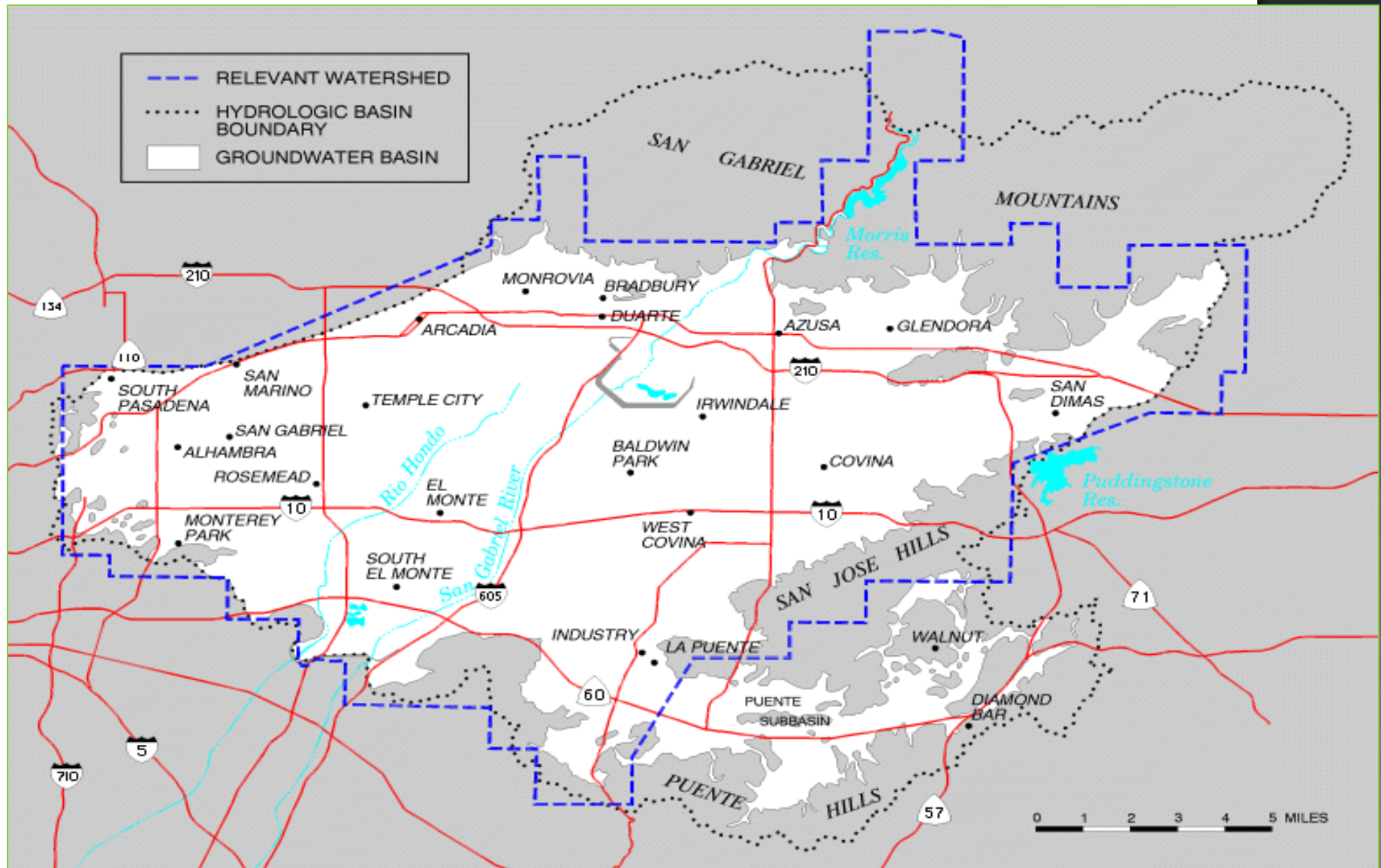
City of Monterey Park

# Water System





# San Gabriel Ground Water Basin





# Complex Water System

- ◉ 12 ground water wells
- ◉ 3 treatment facilities
- ◉ 136.6 miles of 2"- 36" water mains
- ◉ 13 reservoirs with 18.6 million gallons storage
- ◉ 11 booster stations, 13,400 water connections
- ◉ San Gabriel Valley Municipal Water District (SGVMWD)
- ◉ Emergency Connection - San Gabriel Valley Water Company, MWD, California Water Service Company



# Water System Demands

- ⦿ Serves 62,500 residents and over 1,500 businesses
- ⦿ Produced 8.6 million gallons on average
- ⦿ Water consumption 7.8 million gallons on average
- ⦿ MPK's water loss is 9%, most water systems average 3-5%
- ⦿ Unaccounted water = loss in revenue



# Water System Concerns

- ◉ 72% of pipeline system built before 1960
- ◉ Increase of water main failures 25 to 36 and rising
- ◉ 18 miles of pipeline improvements for fire flow
- ◉ Over 50 miles of pipeline need replacement
- ◉ Inefficient water meters need to be replaced
- ◉ SCADA System – Supervisory Control and Acquisition
- ◉ Reservoir storage concrete re-enforced



# \$99.9 million Water CIP

- ◎ \$16.7 million in projects at Delta Booster Station
- ◎ \$5.4 million to replace Pinetree Reservoir
- ◎ \$6.8 million to replace Well 1 & 3
- ◎ Replace 96,000 feet (18.2 miles) of pipe for fire flow improvements
- ◎ Program mitigates emergency repairs
- ◎ Replacement of 11,000 water meters that's reading only 92% of water flow









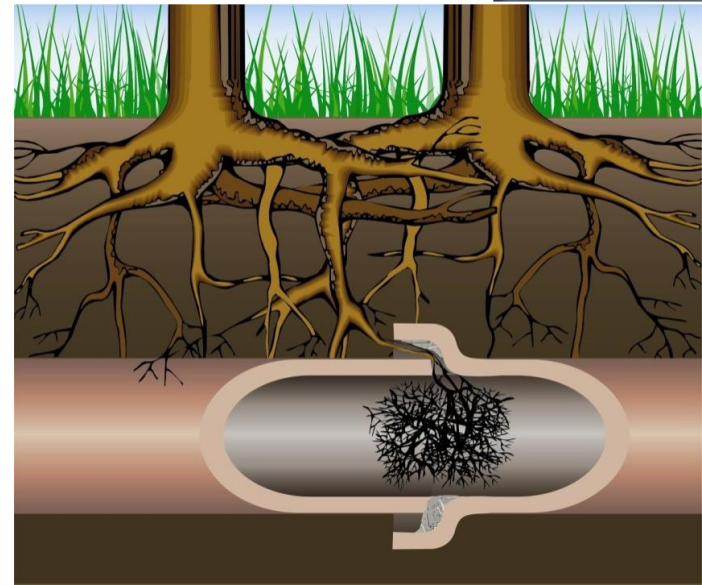
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# Sewer System



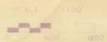


# \$12.8 million Wastewater CIP

- ◉ With only 35% of collection system reviewed, CIP is already \$12.8 million. Video inspection of remaining 65% will increase Wastewater CIP
- ◉ Annual sewer video inspection program
- ◉ \$4.2 million pipeline replacements
- ◉ \$1.5 million spot repairs
- ◉ \$3.9 million cured in place pipe installation
- ◉ \$3.2 million to meet Sewer System Management Program requirements

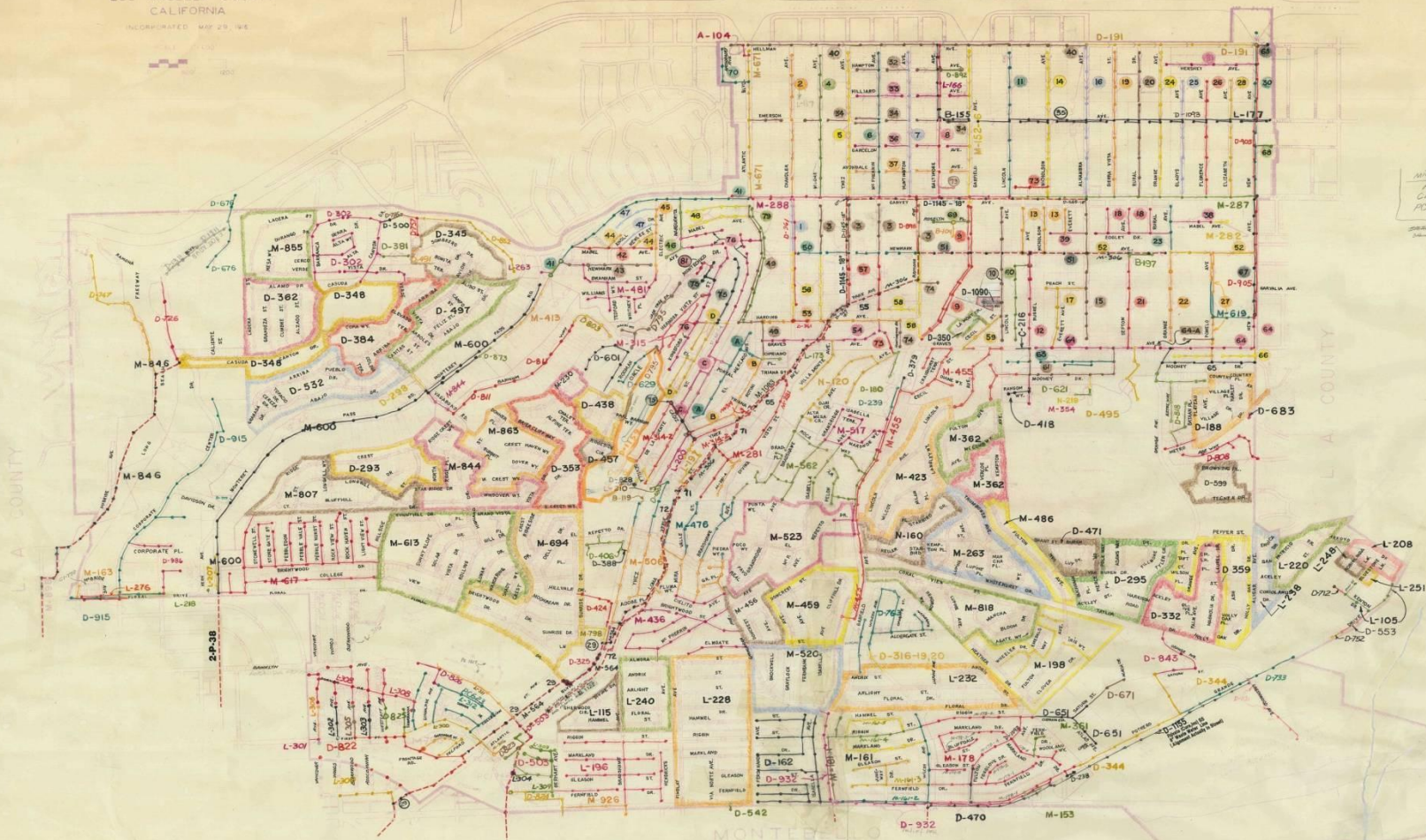
# SEWER UTILITY MAP CITY OF MONTEREY PARK LOS ANGELES COUNTY CALIFORNIA

INCORPORATED MAY 29, 1916



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ALHAMBRA



NOTES:  
A-285  
C1-770  
PC-1374  
1973

SEWER UTILITY MAP OF THE CITY OF MONTEREY PARK, CALIFORNIA

NOTE: NO DRAWING NUMBER OR CONTROL DOCUMENT ARE LOCATED IN FILE NUMBER  
A. MONTEREY PARK MASTER MAPS IN L.A. COUNTY  
B. THE SEWER UTILITY MAPS IN L.A. COUNTY

## L.A. COUNTY SANITATION SEWER SYSTEM

NOTE: Los Angeles County Sanitation District No. 2  
Sanitation District No. 2 is the only district in the  
Sanitation District No. 2 area that is not a part of the  
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# Monterey Park Sewer System

- 126 miles of 6" to 15" sewer mains
- Transport to trunk lines of L.A. County Sanitation
- 2,498 access holes, known as manholes
- Gravity sewer system 250' to 500'





# Sewer Break on Emerson





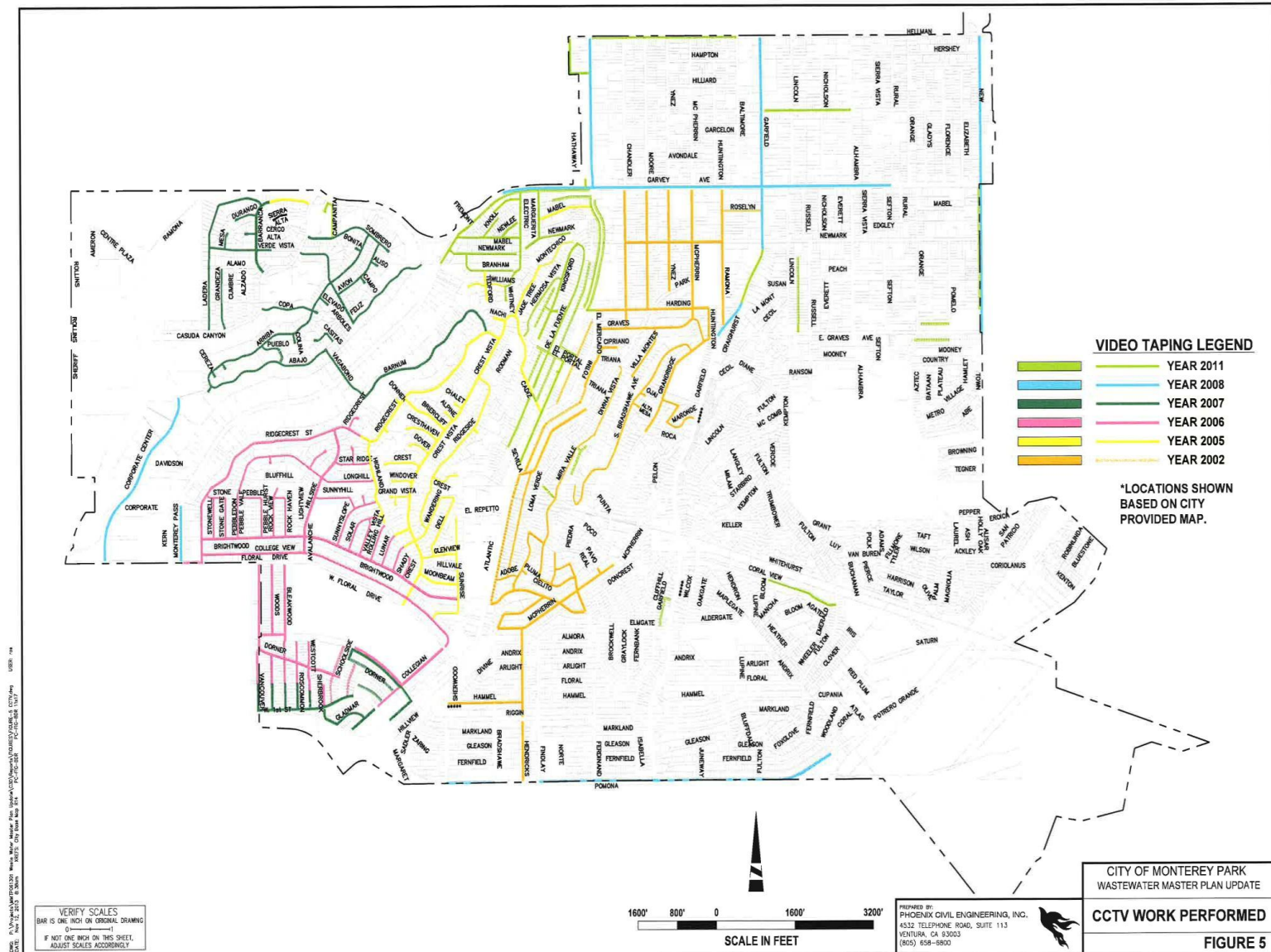
# Sewer System Concerns

- ◎ 65% of the system needs inspection
- ◎ Sewer mains over 100 years in service
- ◎ Grease and root intrusion problematic
- ◎ Staffing levels inadequate and equipment needed
- ◎ Inspection of system must be aggressive
- ◎ Accountable sewage to L.A County Sanitation
- ◎ Public outreach F.O.G. Program





# 65% of Sewer System Never Inspected



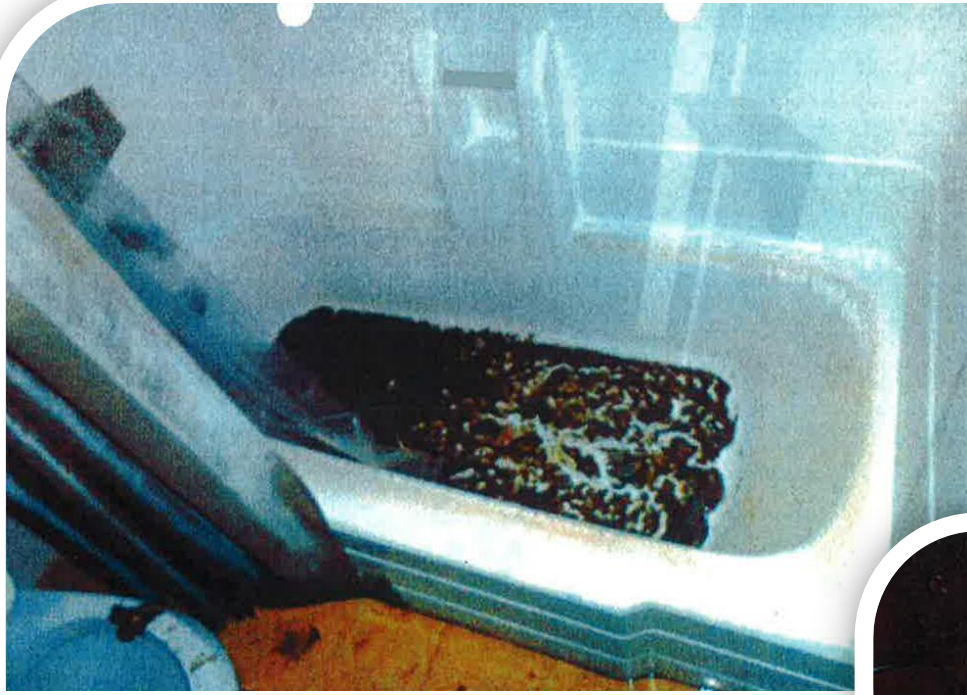


City of Monterey Park

# System Damages



# Damage – 1870 to 1886 S. Garfield



# Damage – 1870 to 1866 S. Garfield





# Damage – 99 Ranch Market





# Damage – 99 Ranch Market

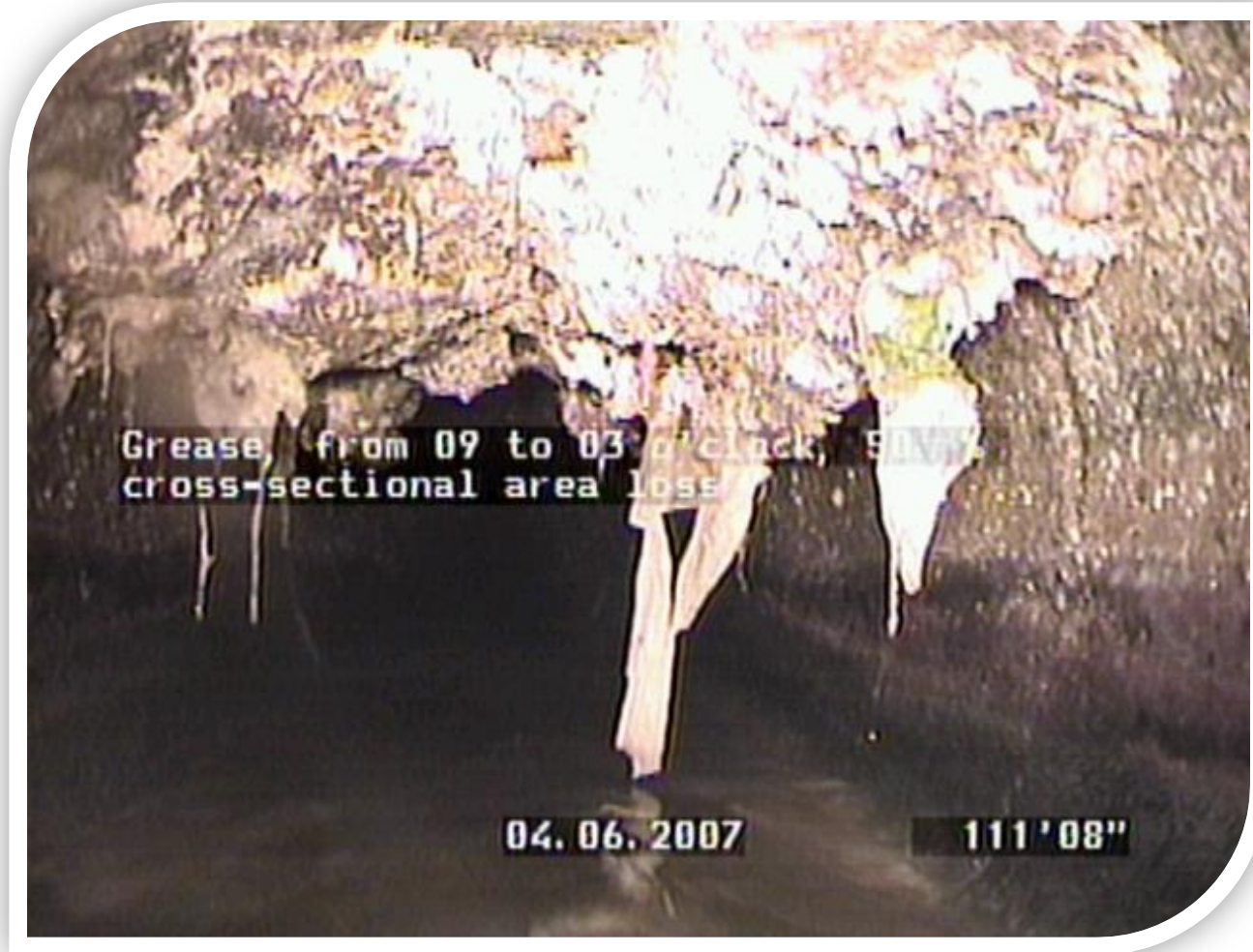




# Grease Blocking Line



# Grease and Roots





# Sewer Overflow



# 5 Year Water and Sewer Capital Improvement Plan





## 5 Year **Water** CIP – \$26.3 Million

<b>Fiscal Year 2014-15 (Year 1)</b>	
Mainline Replacement – Hellman Garfield to New	\$750,200
Mainline Replacement – Emerson from Garfield to New	\$950,400
Mainline Replacement – Garvey from Garfield to New	\$1,451,000
Mainline Replacement – Garfield from Garvey to Hellman	\$910,000
Mainline Replacement – Lincoln from Garvey to Hellman	\$726,100
<b>Total FY 2014-15</b>	<b>\$4,787,700</b>



## 5 Year **Water** CIP – \$26.3 Million (cont')

<b>Fiscal Year 2015-16 (Year 2)</b>	
Mainline Replacement – Nicholson from Garvey to Hellman	\$783,700
Mainline Replacement – Alhambra from Garvey to Hellman	\$798,300
Mainline Replacement – Sierra Vista, Garvey to Hellman	\$649,800
Mainline Replacement – Rural from Garvey to Hellman	\$639,300
Mainline Replacement – Orange from Garvey to Hellman	\$610,400
Mainline Replacement – Gladys from Garvey to Alley	\$326,100
Mainline Replacement – Florence from Garvey to Alley	\$327,100
Mainline Replacement – Elizabeth from Garvey to Alley	\$386,000
Mainline Replacement – Hershey from Orange to New	\$312,000
Mainline Replacement – New from Garvey to Hellman	\$740,800
<b>Total FY 2015-16</b>	<b>\$5,573,500</b>



## 5 Year **Water** CIP – \$26.3 Million (cont')

<b>Fiscal Year 2016-17 (Year 3)</b>	
Mainline Replacement – Milam from Wilcox to South End	\$120,800
Mainline Replacement – Triana from Fotini to Ynez	\$146,100
Expansion of Air Stripper at Well 5, or Construction of Advanced Oxidation Treatment System at Delta Plant	\$4,050,000
<b>Total FY 2016-17</b>	<b>\$4,316,900</b>

<b>Fiscal Year 2017-18 (Year 4)</b>	
Replace Delta Plant Settling Tanks	\$6,075,000
<b>Total FY 2017-18</b>	<b>\$6,075,000</b>



## 5 Year **Water** CIP – \$26.3 Million (cont')

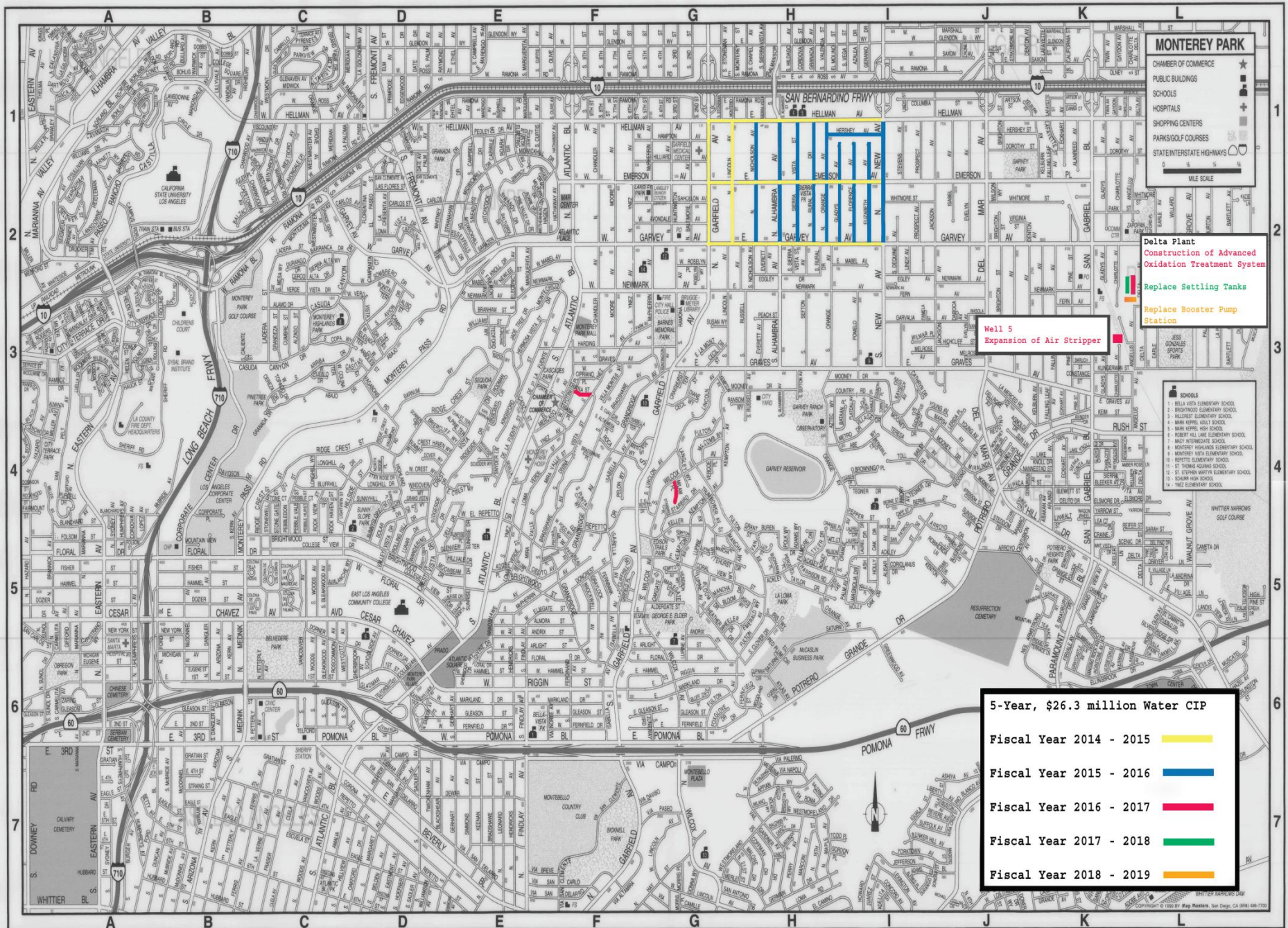
<b>Fiscal Year 2018-19 (Year 5)</b>	
Replace Delta Plant Booster Pump Station	\$5,500,000
<b>Total FY 2018-19</b>	<b>\$5,500,000</b>

<b>Additional Projects (Unfunded)</b>	
Mainline Replacement – Garfield from Graves to Coral View	\$1,219,600
Mainline Replacement – Kingsford from Cadiz to Montechico	\$750,000
Mainline Replacement – De La Fuente from Cadiz to Montechico	\$860,000

**Note: All projects listed above are subject to change pending any additional assessments, analysis or findings.**



# CITY OF MONTEREY PARK





## 5 Year Sewer CIP – \$12.8 Million

Fiscal Year 2014-15 (Year 1)	
Pipeline Replacement – Gladys from Emerson to End of Street	\$228,400
Pipeline Replacement – Briarcliff Way	\$67,000
Pipeline Replacement – Alpine Terrace	\$96,700
Annual CCTV Sewer Videotaping	\$221,800
Spot Repairs – Various Locations	\$377,400
Cured-in-Place Pipe Relining – Various Locations	\$569,300
FOG Program Expansion	\$115,000
CCTV System Expansion	\$345,000
Update Emergency Overflow Response Plan	\$17,300
Allowance for Regular “Hot Spot” Maintenance	\$230,000
<b>Total FY 2014-15</b>	<b>\$2,268,100</b>



## 5 Year Sewer CIP – \$12.8 Million (cont')

Fiscal Year 2015-16 (Year 2)	
Pipeline Replacement – Grandridge	\$333,600
Annual CCTV Sewer Videotaping	\$221,800
Spot Repairs – Various Locations	\$365,000
Cured-in-Place Pipe Relining – Various Locations	\$570,400
Upgrade Field Equipment	\$57,500
Staff Training (CMMS and GIS)	\$11,500
Allowance for Regular “Hot Spot” Maintenance	\$230,000
Annual Allowance for Pipeline Repairs found by CCTV work	\$810,000
<b>Total FY 2015-16</b>	<b>\$2,599,800</b>





## 5 Year Sewer CIP – \$12.8 Million (cont')

Fiscal Year 2016-17 (Year 3)	
Pipeline Replacement – Chandler	\$115,600
Annual CCTV Sewer Videotaping	\$221,800
Spot Repairs – Various Locations	\$385,700
Cured-in-Place Pipe Relining – Various Locations	\$567,700
Develop Sewer Atlas Map Book	\$115,000
Allowance for Regular “Hot Spot” Maintenance	\$230,000
Annual Allowance for Pipeline Repairs found by CCTV work	\$810,000
<b>Total FY 2016-17</b>	<b>\$2,445,800</b>





## 5 Year Sewer CIP – \$12.8 Million (cont')

Fiscal Year 2017-18 (Year 4)	
Pipeline Replacement – Emerson	\$474,000
Annual CCTV Sewer Videotaping	\$221,800
Spot Repairs – Various Locations	\$373,300
Cured-in-Place Pipe Relining – Various Locations	\$794,600
Allowance for Regular “Hot Spot” Maintenance	\$230,000
Annual Allowance for Pipeline Repairs found by CCTV work	\$810,000
<b>Total FY 2017-18</b>	<b>\$2,903,700</b>



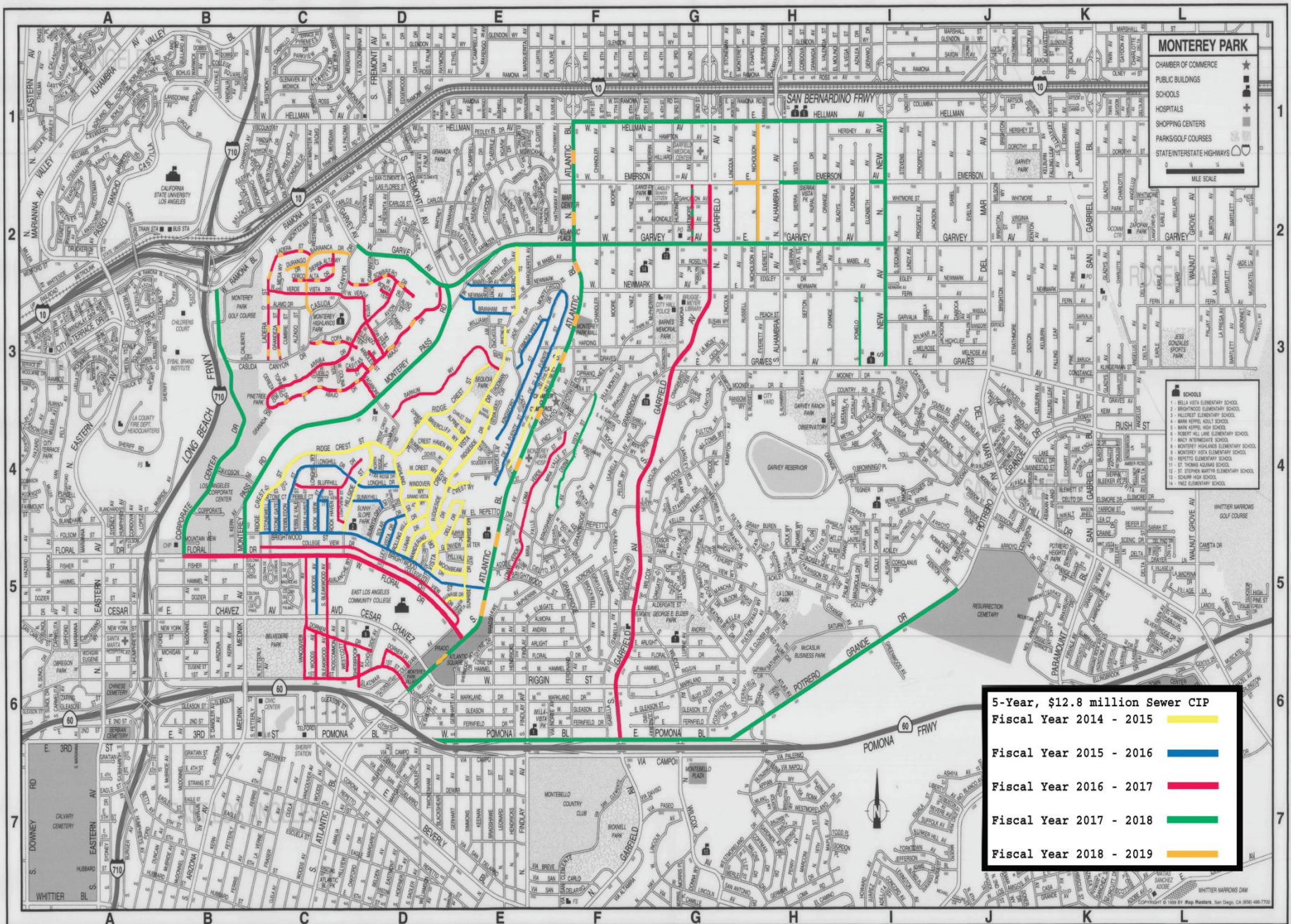
## 5 Year Sewer CIP – \$12.8 Million (cont')

Fiscal Year 2018-19 (Year 5)	
Pipeline Replacement – Easement	\$247,900
Pipeline Replacement – Emerson	\$176,800
Annual CCTV Sewer Videotaping	\$221,800
Cured-in-Place Pipe Relining – Various Locations	\$732,400
Geographic Positioning Survey	\$115,000
Allowance for Regular “Hot Spot” Maintenance	\$230,000
Annual Allowance for Pipeline Repairs found by CCTV work	\$810,000
<b>Total FY 2018-19</b>	<b>\$2,533,900</b>

**Note: All projects listed above are subject to change pending any additional assessments, analysis or findings.**



# CITY OF MONTEREY PARK



# Solid Waste Concerns

- ⦿ Athens contract expires August 2017
- ⦿ Trash rates have not increased since 2009
- ⦿ FY 2014-15 Operating Expenses (\$6.8 million) exceed Revenues (\$5.8 million) by \$1.0 million





# Questions?